

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026768**Date Inspected:** 28-Nov-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Pat Swain**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Sections**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above.

This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

SAS – Tower – F.W. Spencer:

This QA Inspector randomly observed F.W. Spencer personnel fitting up and welding the 3-inch diameter piping to be used as an airline for the maintenance of the tower during the shift this date. This QA Inspector observed that QC Inspector Steve Jensen was assigned to monitor and perform inspections for F.W. Spencer this shift. This QA Inspector randomly observed the following during the fit up of the weld joints; the ends of the piping appeared to be cleaned and beveled, the bevels appeared to be between 30 and 45 degrees, what appeared to be a 3/32-inch diameter electrode (with the flux removed) was positioned between the ends of the pipe to create a root opening, the ends of the pipe were positioned into a fitting aid and clamped. This QA Inspector observed the straightness was checked and then the two ends tack welded together. This QA Inspector randomly observed during the Shielded Metal Arc Welding (SMAW) process a 1/8-inch diameter E6010 electrode was used to weld the root pass and then a 3/32-inch diameter E7018 electrode was used to weld the fill and cover passes. This QA Inspector was informed by QC Inspector Steve Jensen of the following welding parameters for F.W. Spencer welding personnel Damian Llanos; 78 amperes for the 1/8-inch diameter E6010 electrode and 98 amperes for the 3/32-inch diameter E7018 electrode. The welding observed by this QA Inspector appeared to comply with WPS-12-1-1 Revision-2, being used by the QC Inspector.

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See below for the list of weld joints in which this QA Inspector performed a random verification inspection of the fit up and a final weld visual verification after QC inspection and acceptance: 27/3/T/83 and 29/3/T/78.

Prior to the start of welding this date F.W. Spencer foreman Hector Garcia informed this QA Inspector and QC Inspector Steve Jensen that welding personnel Damian Llanos would be performing the production welding this date. Hector Garcia had previously informed this QA Inspector that welding personnel Curtis Jump was going to be replaced and that he had previously submitted his welding certification documents. This QA Inspector check the latest list of approved welding personnel for the project and did not observe Damian Llanos (#6645) was included. This QA Inspector called QA Inspector Scott Croff regarding the issue and was informed that he had been approved.

Orthotropic Bridge Girder (OBG) section:

12W/13W – Longitudinal Stiffener (LS) LS-5, Repair cycle 2 (R-2): This QA Inspector observed ABF welding personnel Fred Kaddu (#2188) had completed the excavation of the defect which resulted in a length of 190 mm and a maximum depth of 17 mm. This QA Inspector observed QC Inspector Pat Swain perform a visual and Magnetic Particle Testing (MT) on the excavation area and inform this QA Inspector he had accepted both inspections. This QA Inspector performed a visual verification and the work appeared to comply with the contract requirements. This QA Inspector observed a hand held torch was used to preheat the base metal and QC Inspector Pat Swain verify the temperature was greater than the minimum of 200°F. This QA Inspector observed QC Inspector Pat Swain verify the following Shielded Metal Arc Welding (SMAW) parameters; 125 amperes. This QA Inspector observed a 3.2 mm diameter E9018H4R electrode was being used. The welding observed by this QA Inspector appeared to comply with ABF-WPS-D15-1002 Repair being used by the QC Inspector. This QA Inspector observed the repair welding at this location appeared to be completed this shift.

SAS –Tower – Cover Plates:

This QA Inspector was informed by QC Inspector Steve Jensen that he concurred the approved drawing indicated the cover plates for A-B corners at the 145 elevation were to be bent because a welding symbol was not included. QC Inspector Steve Jensen stated he would inform Lead QC Inspector Bonifacio Daquinag Jr. of the issue.

This QA Inspector verbally informed QA SPCM Lead Inspector, Daniel Reyes, of the issues noted in this report for compliance therefore for further details of issues of significance see QA SPCM Lead Inspector, Daniel Reyes, Daily Inspection Report (6031) for this date.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted above there were no notable conversations.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
